# *Fourth Annual Customer Survey Results*

## Office of Nuclear and Facility Safety

## *Operating Experience Weekly Summary*

*December 15, 1998*

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***The Office of Environment, Safety and Health (ES&H) is the corporate resource that fosters departmental excellence through innovative leadership in the protection of workers, the public, and the environment. This commitment to excellence will be demonstrated by striving for continuous improvement in developing meaningful programs, policies and priorities, in conducting independent oversight of ES&H performance, and in providing technical resources, assistance, and information sharing domestically and abroad. Open communication, participation, and performance feedback on ES&H performance activities from relevant parties are integral to ES&H success.***

# I. Executive Summary

In the continuing effort to maintain and develop the utility, relevance, and overall quality of the Operating Experience Weekly Summary (OEWS), readers were asked to complete a survey. Their responses may be summarized as follows.

- The utility, relevance, and overall quality of the OEWS are judged by the respondents to be consistently high.
- Over three-quarters (83 percent) of the respondents think that the OEWS has helped to improve safety performance at their site.
- Roughly a third (28 percent) of the readership of the OEWS appear to be managers, while approximately a quarter (26 percent) are engineer/analysts.
- The conclusions are generally in line with those of previous surveys, which showed that respondents were satisfied that the OEWS is high quality, useful, and relevant.

The extensive reach of the OEWS, combined with its frequency, makes it an excellent tool for enhancing the safety culture within the DOE complex, improving the quality of facility operations, and improving lateral integration throughout DOE.

# II. Survey Process and Result Highlights

The survey consisted of 46 questions designed to examine OEWS quality, relevance, and reader characteristics. It was attached to four weekly summaries and was also available on the Internet. A total of 197 individuals completed it and returned it by mail or e-mail. However, because the OEWS is available on the Internet and hard copies are shared, nothing can be said about the actual number of readers or the percentage of the total readership represented by these respondents.

Highlights of the responses follow.

***OEWS Usability and Applicability to Safety***

- Ninety-one percent of the respondents believe the OEWS has contributed to improved safety performance at their site.
- Ninety-five percent of the respondents rate the articles in the OEWS as either "Very useful" or "Somewhat useful."
- Sixty-one percent of respondents report that the primary use of the OEWS is in lessons learned programs.
- Ninety-three percent of the respondents report that OEWS articles contain sufficient information.
- Seventy-five percent report that the DOE guidance information in the articles is either "Very useful" or "Somewhat useful."
- Eighty-nine percent of the respondents report that the suggested actions information contained in the articles is either "Very useful" or "Somewhat useful."
- About one-half (51 percent) of the respondents report that the quality and utility of OEWS articles has improved since they began reading them.

***OEWS Readership***

- Over half (54 percent) of the respondents are either managers or engineer/analysts.
- Over half (55 percent) of the respondents work for operating contractors for DOE.
- Just under half (47 percent) of the respondents think the OEWS should be published weekly, while over one-third (37 percent) think publication should be biweekly.
- Slightly more than three-quarters (77 percent) of the respondents think there is no need for another Operating Experience product.

- Over half (57 percent) of the respondents do not know that they have the opportunity to write an OEWS article with an OEAF engineer.

***OEWS Distribution and Utilization***

- Over one-third (38 percent) of the respondents report a formal distribution/sharing process for the OEWS within their organization.

- Sixty-eight percent of the respondents report sharing their OEWS with at least one other person (one respondent reported passing it on to 365 persons), with an average pass-on readership of eight persons.

- Of the respondents, 89 percent report a lessons learned program at their facility.

- Just over three-quarters (79 percent) of the respondents are able to access the OEWS electronically through a network or the Internet.

Different groups of respondents seem to view or use the OEWS differently.

- *Position.* Managers are more likely than engineers to use the OEWS in a training program.

- *Role in safety.* Respondents working in a safety department are less likely than respondents not working in a safety department to use the OEWS in a lessons learned program.

- *Type of employer.* Subcontractor employees were the only group where fewer than half the respondents said they use the OEWS in corrective actions programs.

Although there were few suggestions offered, two ways to improve the OEWS were mentioned frequently enough to warrant consideration.

- Distribute it through the Internet via a listserver or an e-mail sending.

- Refer more often to the experiences of commercial industry and NRC regulatory policy and procedures.

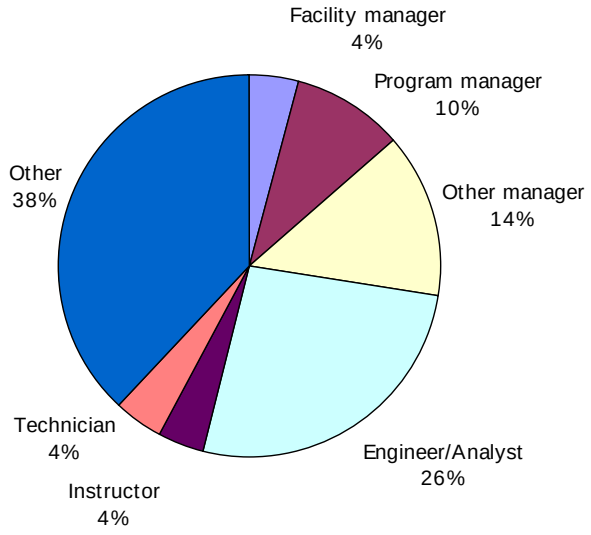
When asked for ideas on new products, many respondents suggested a publication that would reveal and discuss annual trends in incidents. Since this is presently covered by the EH-33 Performance Indicators Program, it would appear that an occasional announcement should be published to inform our respondents.

Respondents were prompted to suggest Safety Notice topics, but no topic was suggested by more than one respondent. Suggestions included security safety, subcontractor control in radiological areas, packaging issues, fire protection, respiratory protection, electrical safety, chemical safety, and work control/planning.

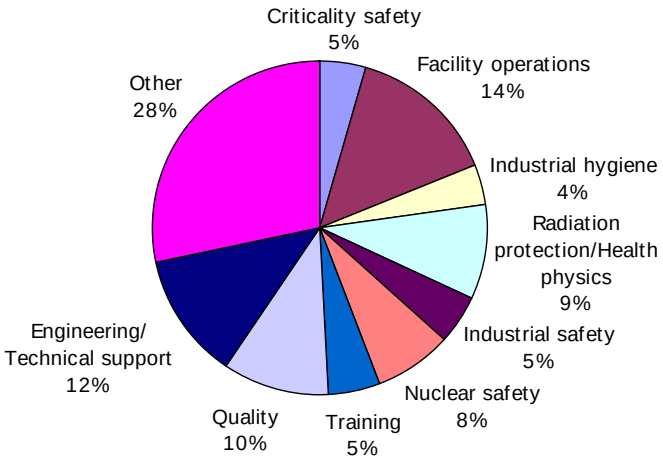
Many of these survey results can be presented in graphical form.

# III. Graphs

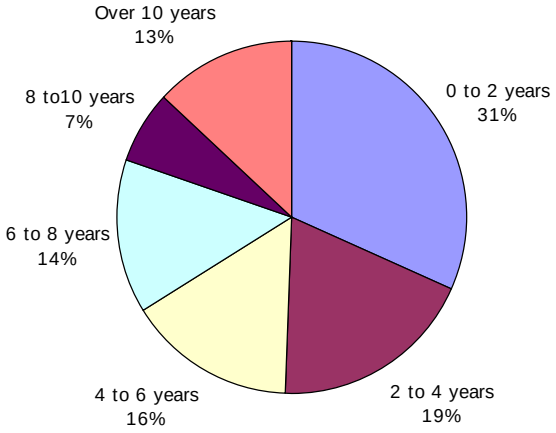
### Respondents by title



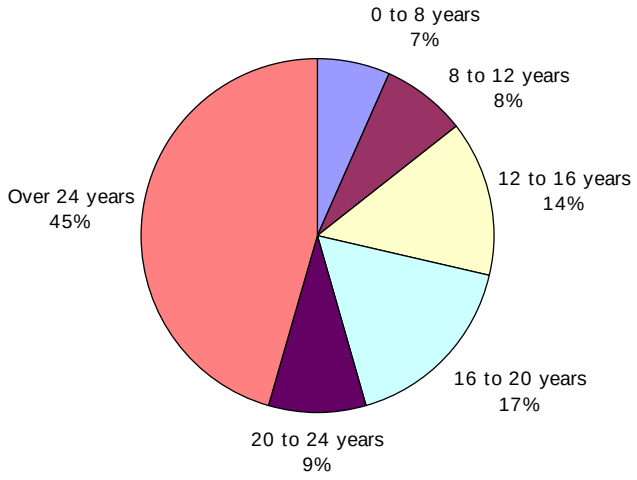

### Respondents by department



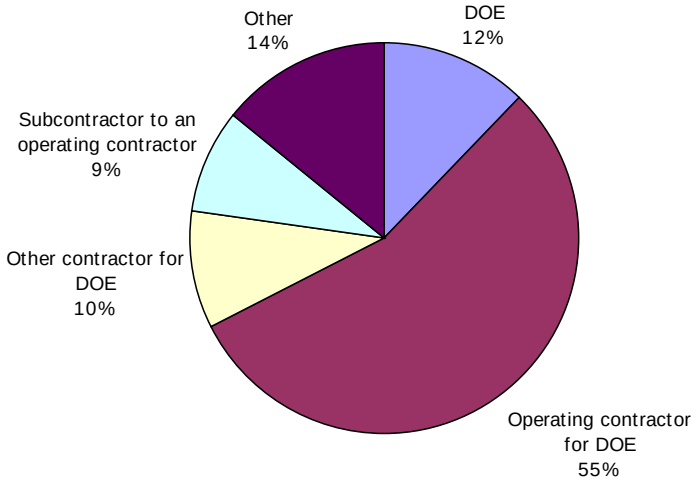

### Respondents by years at current position



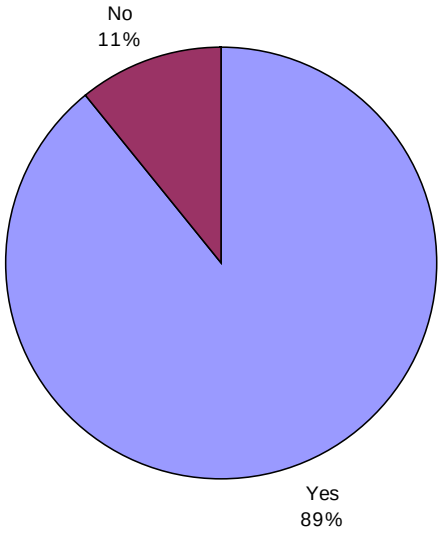
## Respondents by total years of experience



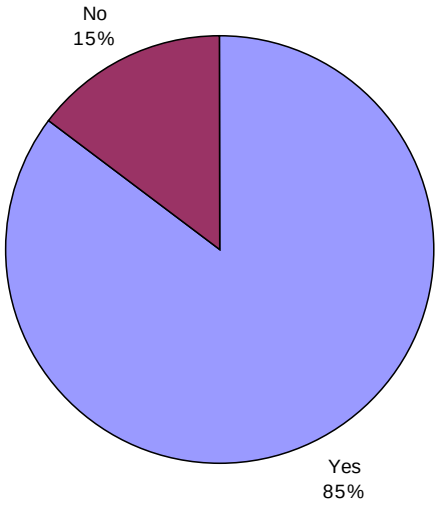

## Respondents by employer



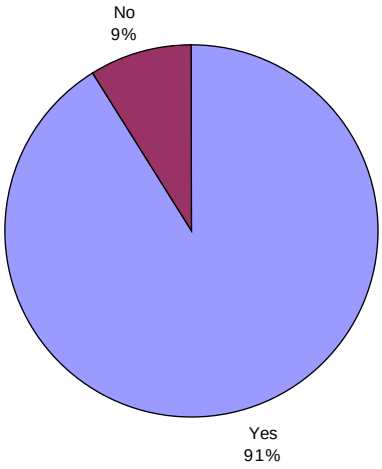
**Does your facility have a lessons learned program?**



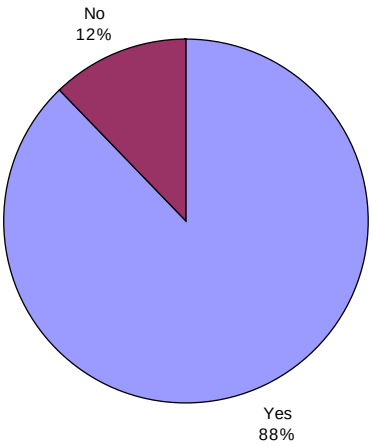

**Is your lessons learned program formal?**



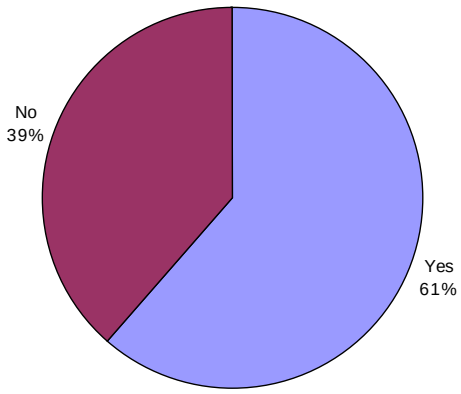

**Does your lessons learned program include identification of specific corrective actions?**



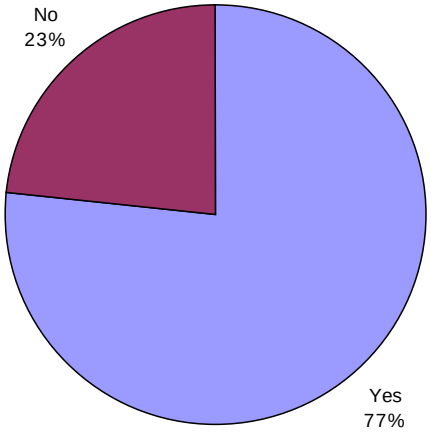

**Does your lessons learned program include tracking of the identified corrective actions?**



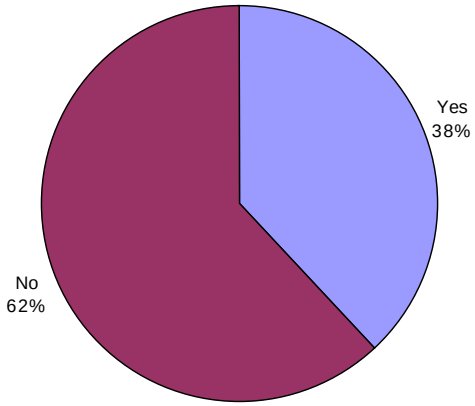

**Does your lessons learned program track the effectiveness of corrective actions?**



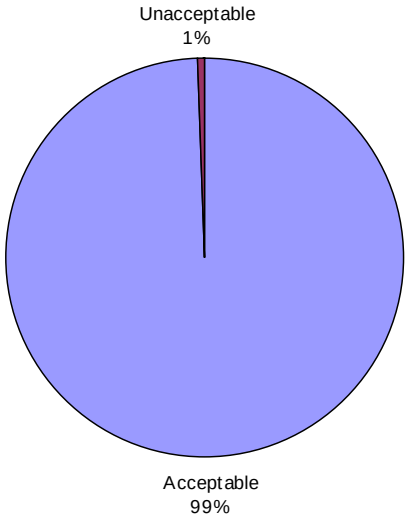
**Does your facility have a lessons learned coordinator or point-of-contact?**



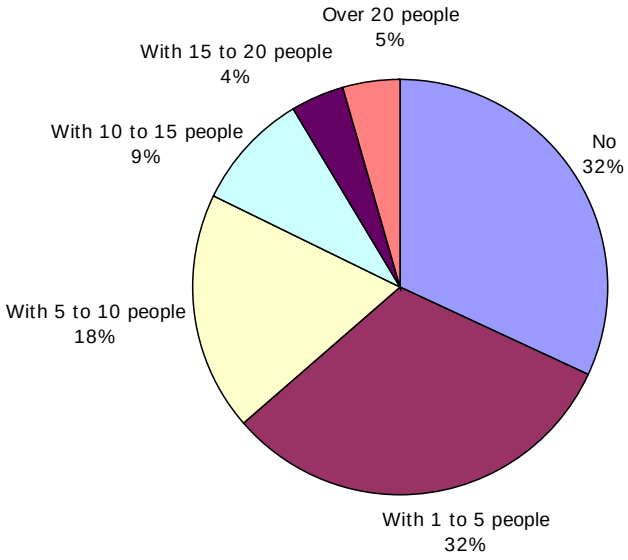

**Do you have formal distribution of the OEWS within your organization?**



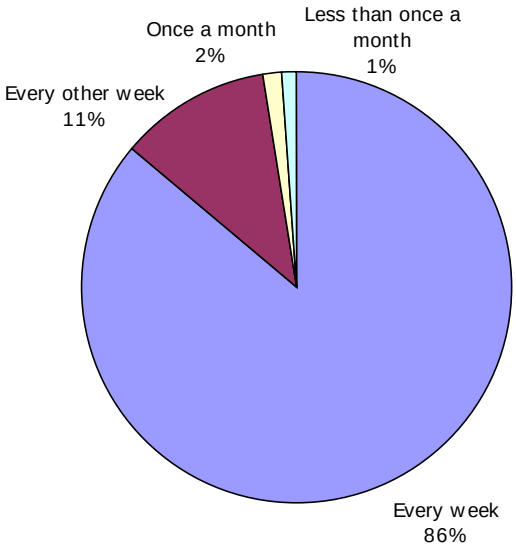

**What is the physical appearance of the OEWS when it arrives ?**



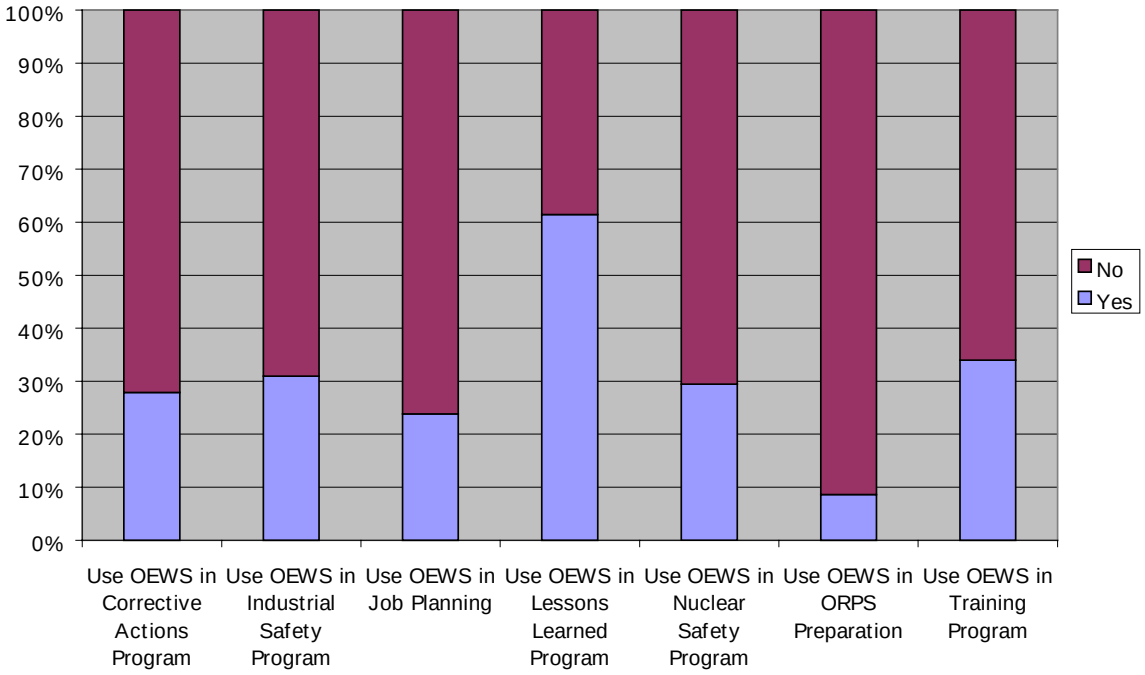
## Do you share your copy of the OEWS?



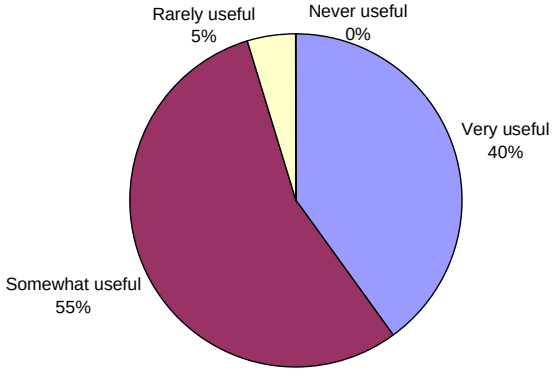

## How often do you read the OEWS?



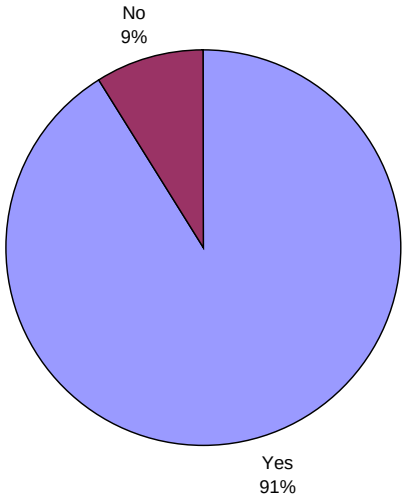
## How do you use the OEWS in your job?



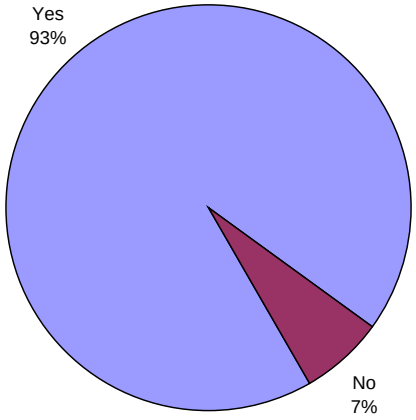

## How useful in your job are the articles in the OEWS?



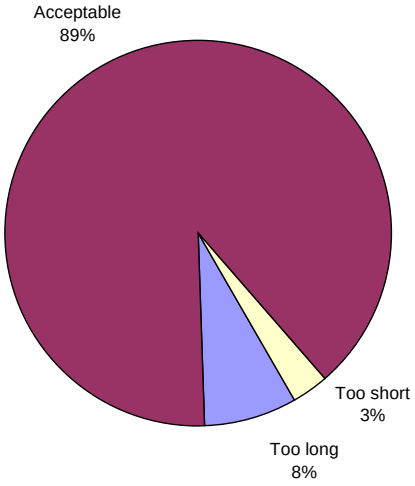

## Do you believe the OEWS has contributed to improved safety performance at your site?



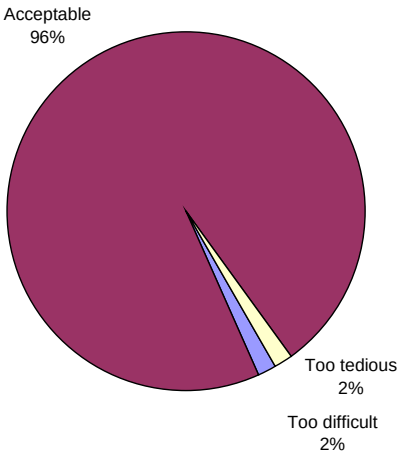
**Do the articles in the OEWS contain sufficient information?**



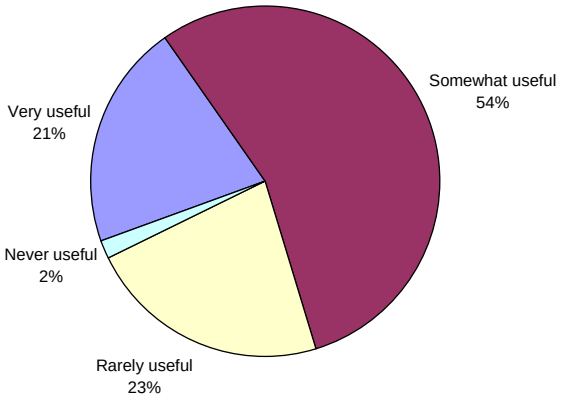

**On average, how satisfactory is the length of the OEWS articles?**



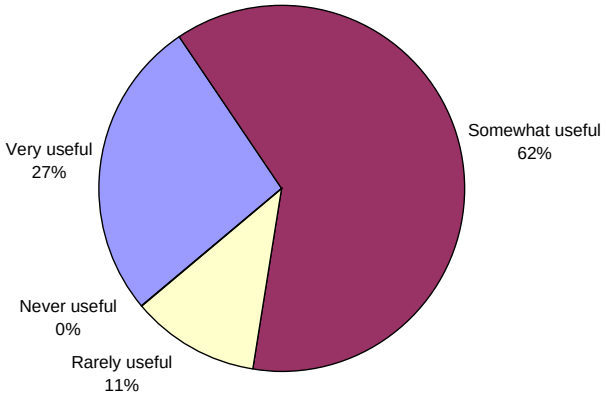

**How easy to understand are the articles in the OEWS?**



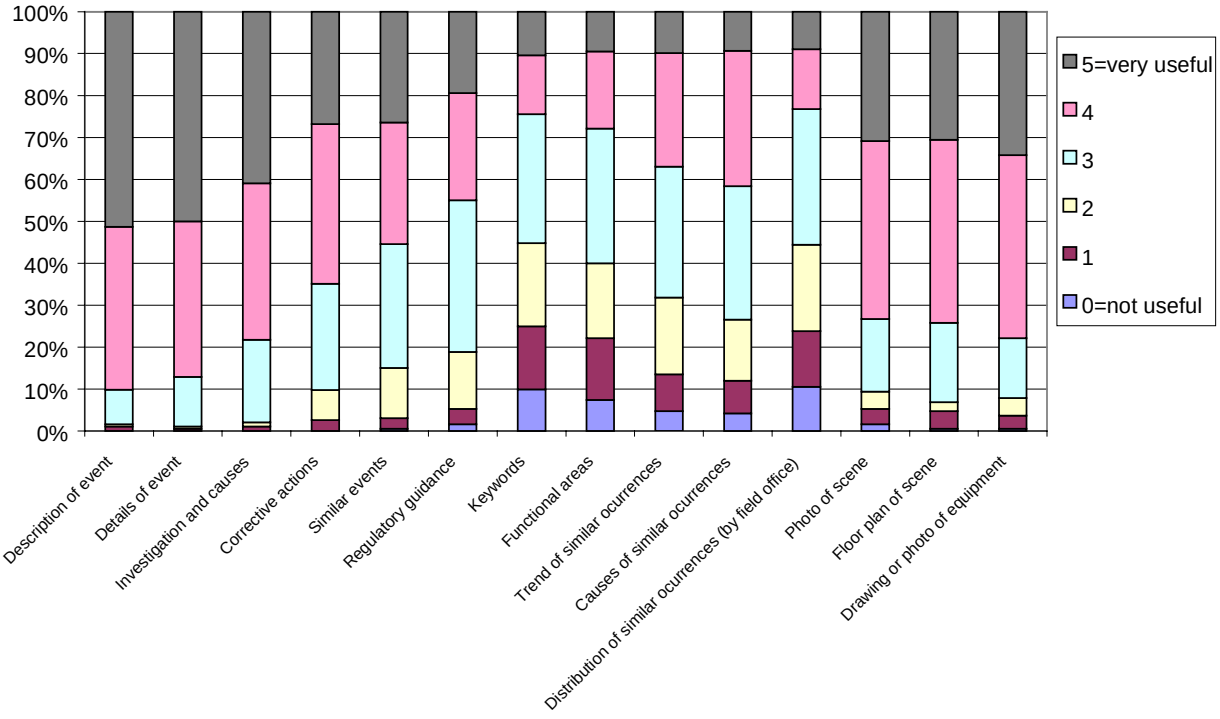
**How useful are the "DOE Guidance" sections of OEWS articles?**



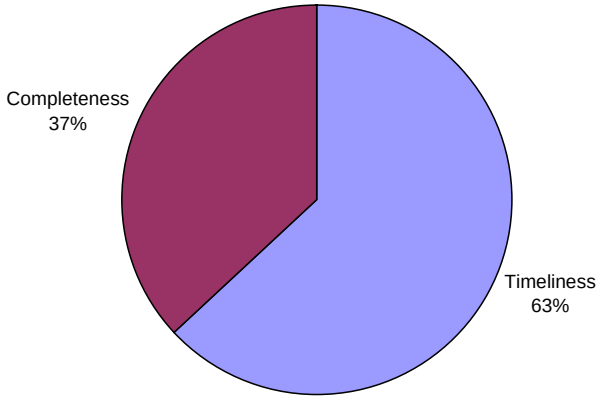

**How useful are the "suggested actions" given in the OEWS articles?**



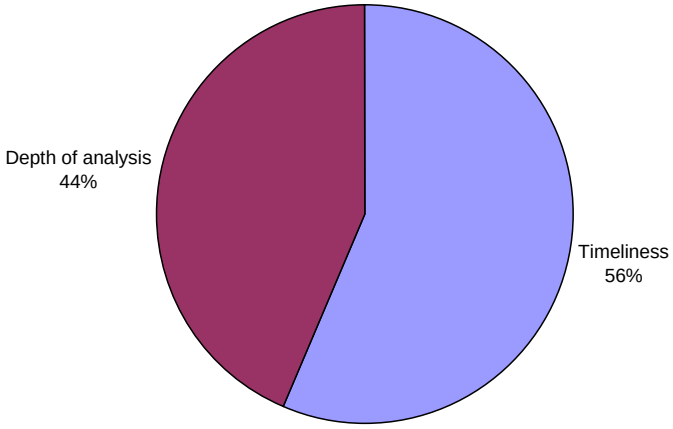

**How useful are the following parts of OEWS articles when they are included?**



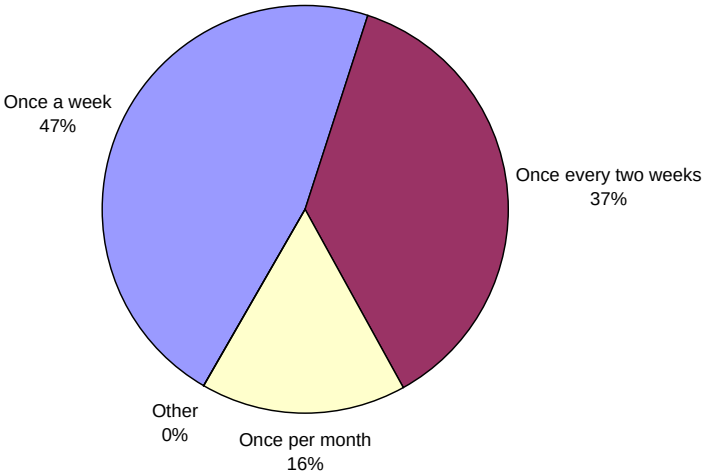
## Do you prefer timeliness or completeness in the OEWS?



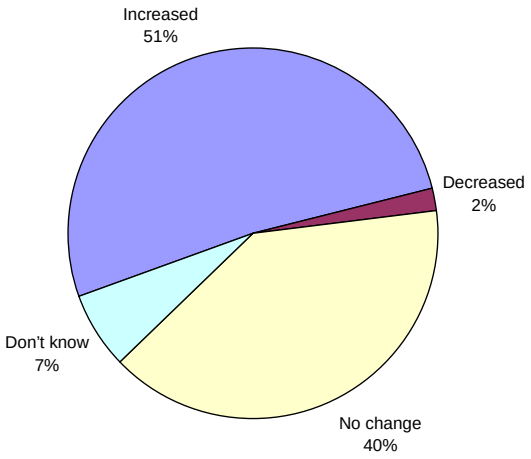

## Do you prefer timeliness or depth of analysis in the OEWS?



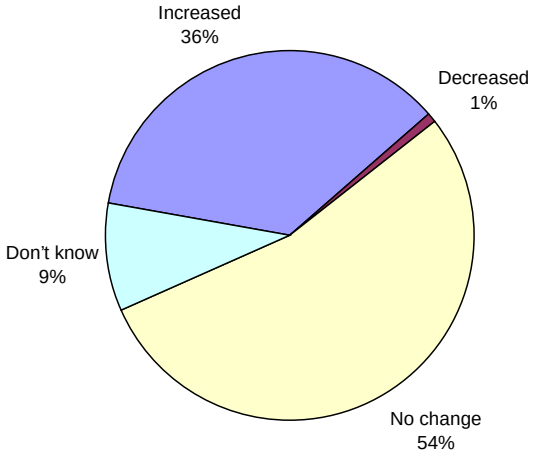

## How frequently should DOE publish the OEWS?

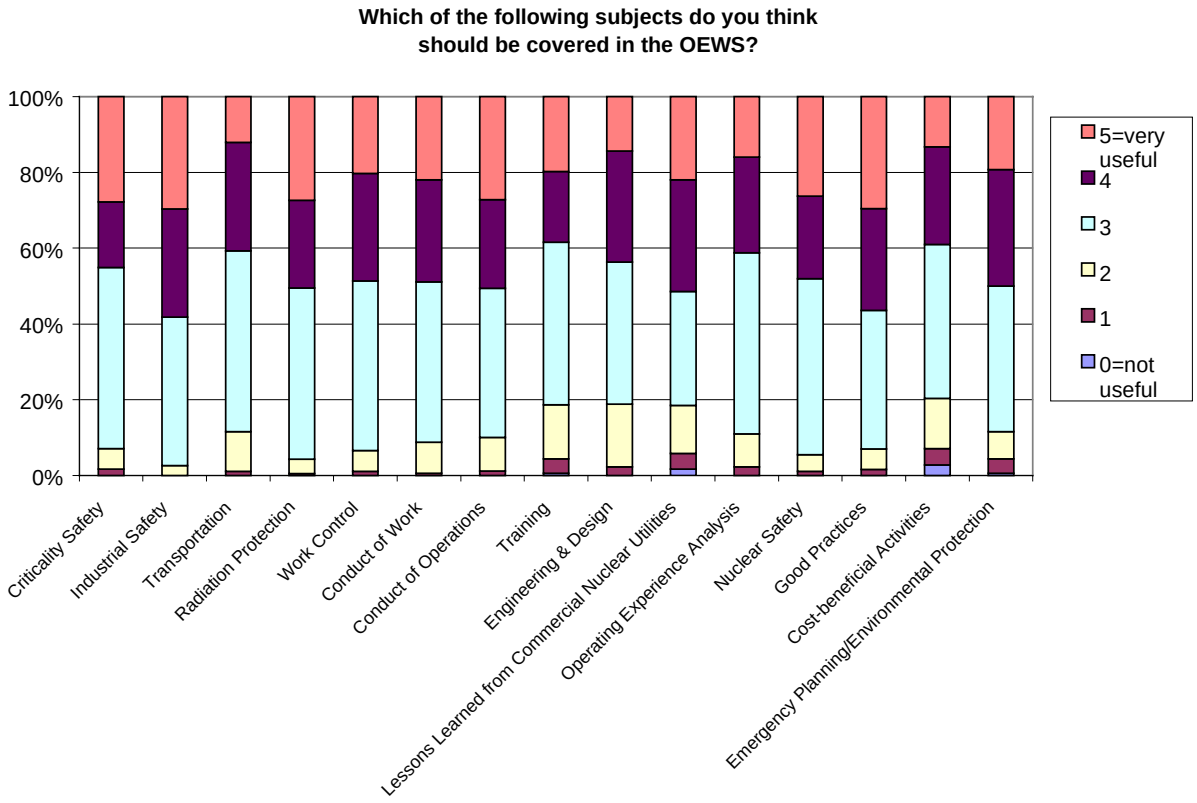


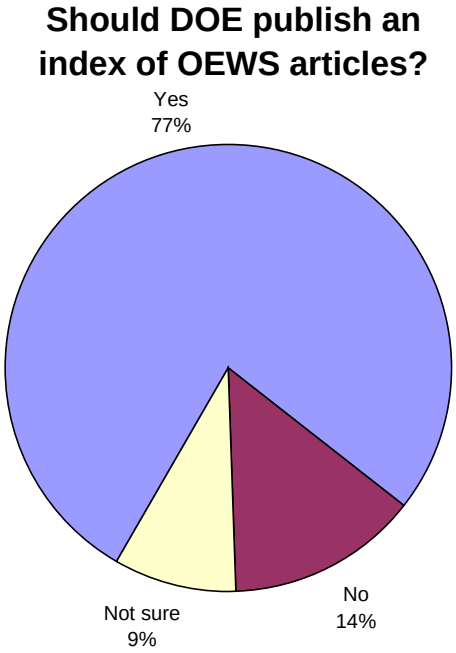
**Since you have been receiving the OEWS, has the overall quality/usefulness changed?**



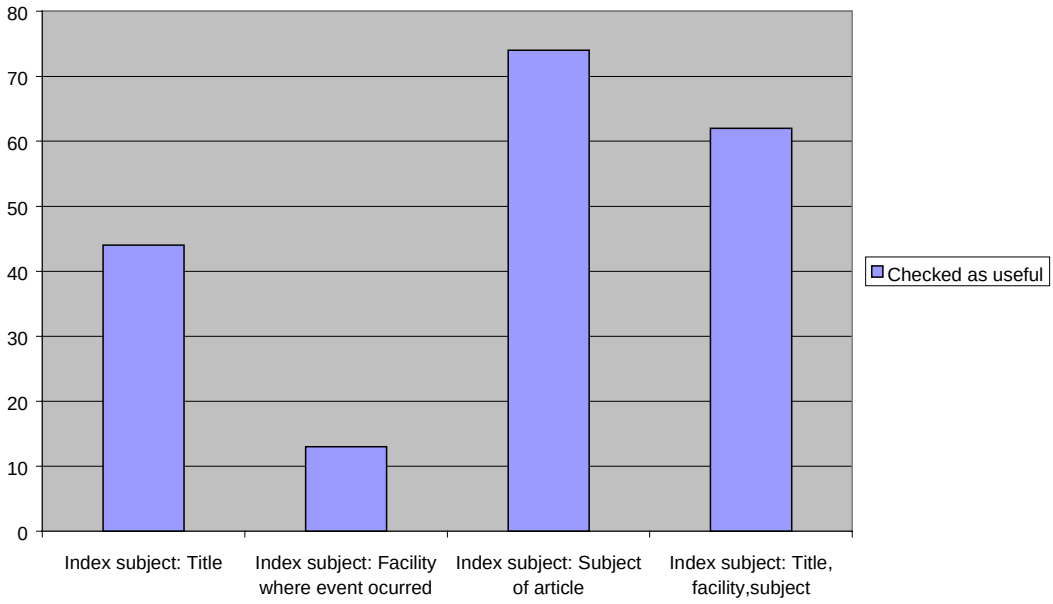

**Over the last year, has the overall quality/usefulness of the OEWS changed?**



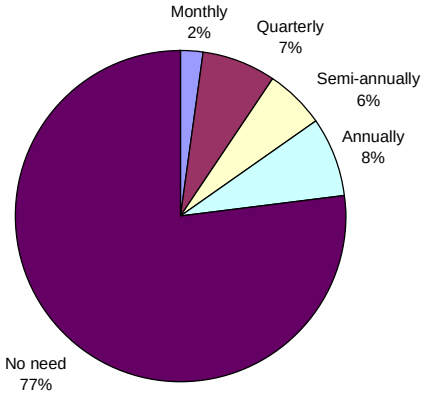

Which of the following subjects do you think should be covered in the OEWS?
100%
80%
60%
40%
20%
0%
5=very useful
4
3
2
1
0=not useful
Criticality Safety
Industrial Safety
Transportation
Radiation Protection
Work Control
Conduct of Work
Conduct of Operations
Training
Engineering & Design
Lessons Learned from Commercial Nuclear Utilities
Operating Experience Analysis
Nuclear Safety
Good Practices
Cost-beneficial Activities
Emergency Planning/Environmental Protection


Should DOE publish an index of OEWS articles?
Yes
77%
No
14%
Not sure
9%

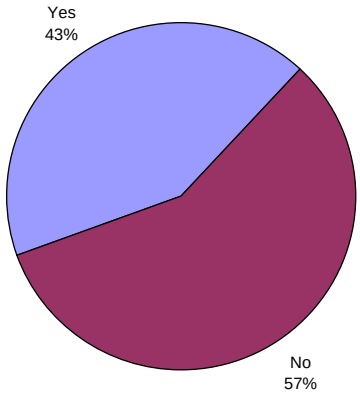
## Which index subjects would be most useful?



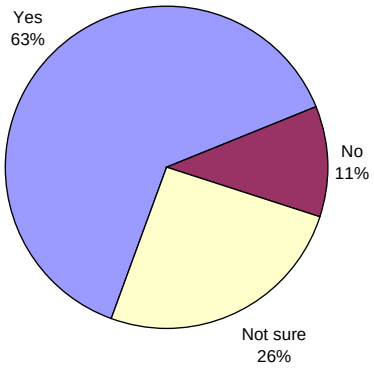

## In your opinion, is there a need for another operating experience product?



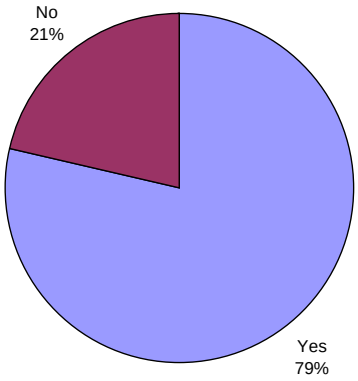

## Are you aware that you may write an article for publication in the OEWS?



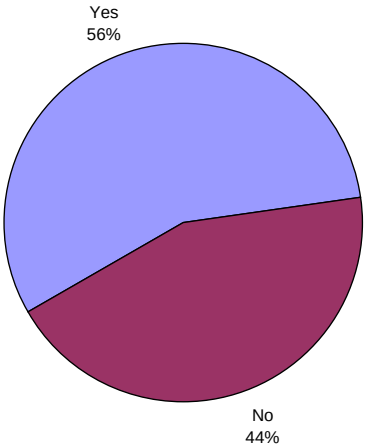
**Should DOE publish a periodical highlighting outstanding programs at DOE facilities, sites, or organizations?**



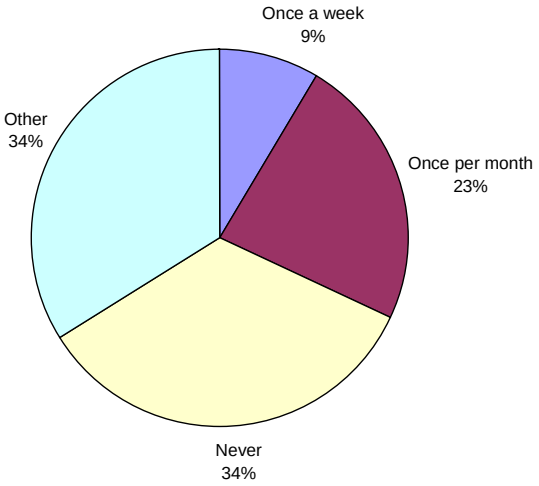

**Are you able to access the OEWS through the Internet?**



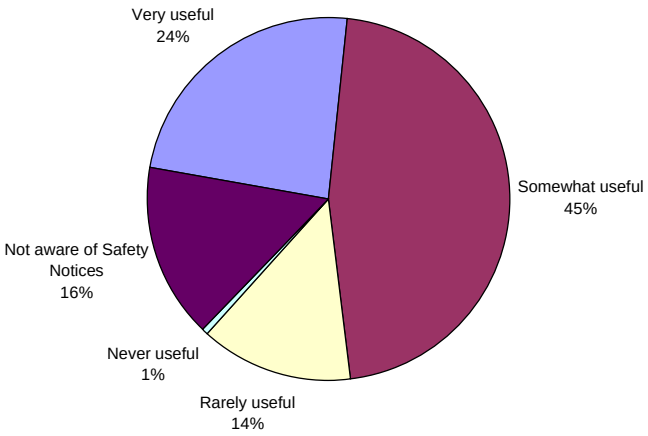

**Are you aware that you can perform electronic word searches of all OEWS files on the Internet?**



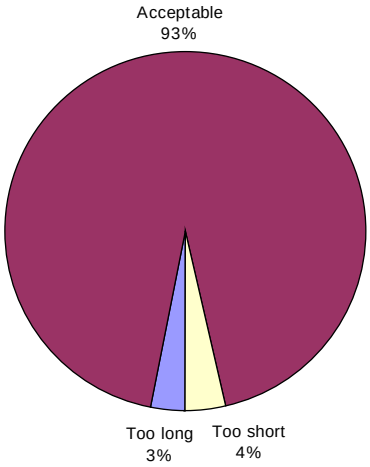
## How frequently do you use the Internet search of the OEWS?



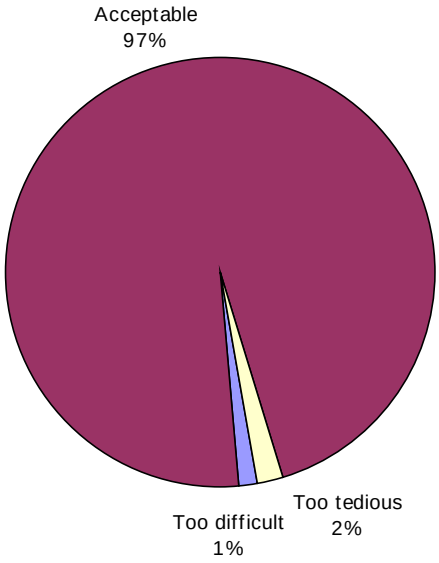

## How useful are the Safety Notices?



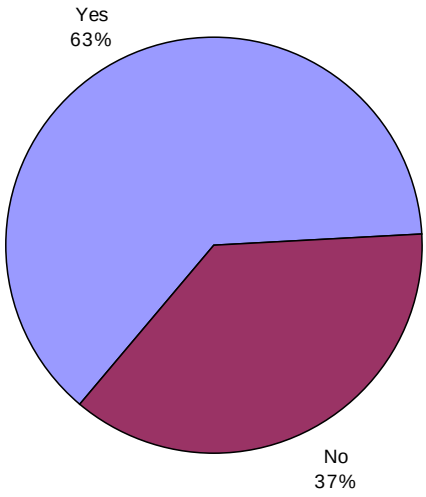

## On average, how satisfactory is the length of the Safety Notices?



## How easy to understand are the Safety Notices?




## Would you like to receive the OEWS electronically?



# IV. Percentages

1. What is your job title?

| | |
|---|---|
| Facility Manager | 4.1% |
| Report Originator | 2.0 |
| Facility Representative | 2.6 |
| Program Manager | 9.7 |
| **Other Manager** | **13.8** |
| **Engineer/Analyst** | **26.5** |
| Supervisor | 1.5 |
| Instructor | 4.1 |
| Technician | 4.1 |
| **Other** | **31.6** |

2. In which department do you usually work?

| | |
|---|---|
| Criticality Safety | 4.6% |
| **Facility Operations** | **14.3** |
| Industrial Hygiene | 4.1 |
| Maintenance | 2.6 |
| Radiation Protection/Health Physics | 9.2 |
| Industrial Safety | 4.6 |
| Nuclear Safety | 7.7 |
| Operating Experience Analysis/Lessons Learned | 2.0 |
| Training | 5.1 |
| Quality | 10.2 |
| Security | 0.0 |
| **Engineering/Technical Support** | **12.2** |
| **Other** | **23.4** |

3. How long have you been in your current position?

| | |
|---|---|
| < 1 year | 4.2% |
| **1 - 3 years** | **35.9** |
| **4 - 6 years** | **26.0** |
| **7-10 years** | **20.9** |
| >10 years | 13.0 |

4. How many total years of experience do you have?

| | |
|---|---|
| < 6 years | 2.5% |
| 6 -10 years | 9.2 |
| **> 10 years** | **88.3** |

5. Who is your employer?

| | |
|---|---|
| **DOE** | **12.2%** |
| Department of Transportation (DOT) | 0.0 |
| **Operating Contractor for DOE** | **55.3** |
| Other Contractor to DOE | 9.6 |
| Subcontractor to an Operating Contractor | 8.6 |
| Nuclear Regulatory Commission (NRC) | 1.0 |
| Environmental Protection Agency (EPA) | 0.0 |
| Occupational Safety and Health Administration (OSHA) | 0.0 |
| Other Federal Government | 2.5 |
| State Regulatory Agency | 0.5 |
| Commercial Nuclear Utility | 3.0 |
| University | 2.5 |
| Medical Facility | 0.0 |
| Other | 4.8 |

6. Does your facility or organization (e.g., company, office, site) have a lessons learned program?

| | |
|---|---|
| **Yes** | **88.3%** |
| No | 10.7[1] |

7. If yes, would you describe the program as formal (i.e., written guidance or procedures)?

| | |
|---|---|
| **Yes** | **74.1%** |
| No | 12.7 |

8. If yes, does the program include identification of specific corrective actions from reviewing operating experience/lessons-learned documents that may be applied to your facility?

| | |
|---|---|
| **Yes** | **67.5%** |
| No | 6.6 |

9. If yes, does the program include tracking the identified corrective actions?

| | |
|---|---|
| **Yes** | **58.4%** |
| No | 8.1 |

10. If yes, does the program track the effectiveness of the corrective actions?

| | |
|---|---|
| **Yes** | **33.2%** |
| No | 20.9 |

11. Does your facility have a lessons-learned coordinator or point-of-contact?

| | |
|---|---|
| **Yes** | **69.5%** |
| No | 21.3 |

[1]Note for questions 7-10: each question was answered only by those who had said yes to the preceding question, so the totals are much less than 100 percent.

12. Do you have formal distribution of the OEWS within your organization?

| | |
|---|---|
| Yes | 37.6% |
| **No** | **61.4** |

13. What is the physical appearance of the OEWS when it arrives?

| | |
|---|---|
| **Acceptable** | **97%** |
| Unacceptable | 0.5 |

14. Do you share your copy of the OEWS?

| | |
|---|---|
| **Yes, with (average of over 11) people** | **68%** |
| No | 32 |

15. How often do you read the OEWS?

| | |
|---|---|
| **Every week** | **86.0%** |
| Every other week | 11.4 |
| Once a month | 1.6 |
| Less frequently than once a month | 1.0 |

16. How do you use the OEWS in your job (check all that apply)?
*See Qualitative Discussion*

| | |
|---|---|
| Corrective Actions Program | 27.9% |
| **Industrial Safety Program** | **31.0** |
| Job Planning | 23.9 |
| **Lessons Learned Program** | **61.4** |
| Nuclear Safety Program | 29.4 |
| ORPS Preparation | 8.6 |
| **Training Program** | **34.0** |
| **Other** | **34.0** |

17. How useful in your job are the articles in the OEWS?

| | |
|---|---|
| **Very useful**<br>(e.g., at least one article in every issue is pertinent to your job) | **40.0%** |
| **Somewhat useful**<br>(e.g., one article in every 4/5 issues is pertinent to your job) | **55.4** |
| Rarely useful<br>(e.g., only one article used each quarter) | 4.6 |
| Never useful | 0.0 |

18. Do you believe the OEWS has contributed to improved safety performance at your site?

| | |
|---|---|
| **Yes** | **83.2%** |
| No | 8.1 |

19. Do the articles in the OEWS contain sufficient information?
*See Qualitative Discussion*

| | |
|---|---|
| **Yes** | **91.4%** |
| No<br>(If no, what information do you feel should be included?) | 6.6 |

20. On average, the length of the OEWS articles is

| | |
|---|---|
| Too long<br>(Many articles contain extraneous information and take too long to read.) | 7.7% |
| **Acceptable length**<br>(Most articles contain only pertinent information.) | **89.2** |
| Too short<br>(Most articles are missing pertinent information.) | 3.1 |

21. How easy to understand are the articles in the OEWS?

| | |
|---|---|
| Too difficult<br>(The writing is complex; many technical terms are not adequately defined.) | 1.5% |
| **Acceptable**<br>(The writing is clear; technical terms are adequately defined.) | **96.9** |
| Too tedious<br>(The writing is simplistic; too many common technical terms are defined.) | 1.5 |

22. How useful are the "DOE Guidance" sections of OEWS articles (usually the last paragraph or two of the articles)?

| | |
|---|---|
| Very useful | 20.9% |
| **Somewhat useful** | **55.0** |
| Rarely useful | 22.5 |
| Never useful | 1.6 |

23. How useful are the suggested actions given in the OEWS articles?

| | |
|---|---|
| **Very useful** | **26.6%** |
| **Somewhat useful** | **62.0** |
| Rarely useful | 11.5 |
| Never useful | 0.0 |

24. How useful are the following parts of OEWS articles when they are included?
("0" = Not useful, "5" = Very useful)

| | **Mode** ***(most frequent response)*** |
|---|---|
| **Description of event and significance (first paragraph)** | 5 |
| **Details of event (second paragraph)** | 5 |
| **Investigation and causes of event** | 5 |
| **Corrective actions** | 4 |

| | |
|---|---|
| **Similar events** | 3 |
| **Regulatory guidance** | 3 |
| **Key words** | 3 |
| **Functional areas** | 3 |
| **Trend of similar occurrences (graph)** | 3 |
| **Causes of similar occurrences (graph)** | 4 |
| **Distribution of similar occurrences by field office (graph)** | 3 |
| **Photograph of occurrence scene** | 4 |
| **Floor plan of occurrence scene** | 4 |
| **Drawing or photograph of equipment** | 4 |

25. Some of the information presented in an OEWS article is based on the investigation and critique of the occurrence. Because new information may be uncovered during the investigation, there is a trade-off between the timeliness of an article and attributes such as completeness and depth of analysis. For each attribute in the pairs below, circle the one that is most important to you in an OEWS article. If you prefer timeliness to completeness, circle timeliness. If you prefer depth of analysis to timeliness, circle depth of analysis.

| | | | |
|---|---|---|---|
| **Timeliness** | **53.8%** | **Completeness** | 31.5% |
| **Timeliness** | **47.7** | **Depth of analysis** | 37.1 |

26. How frequently should DOE publish the OEWS?

| | |
|---|---|
| **Once a week** | **46.7%** |
| **Once every two weeks** | **36.9** |
| Once per month | 16.4 |
| Other | 0.0 |

27. Since you have been receiving the OEWS, has the overall quality/usefulness

| | |
|---|---|
| **Increased** | **51.5%** |
| Decreased | 2.1 |
| **No change** | **39.7** |
| Don't know | 6.7 |

28. Over the last year, has the overall quality/usefulness

| | |
|---|---|
| **Increased** | **35.8%** |
| Decreased | 1.0 |
| **No change** | **53.9** |
| Don't know | 9.3 |

29. Which of the following subjects do you think should be covered in the OEWS?
("0" = Never include, "3" = OEWS covers the subject sufficiently, "5" = Include more frequently)

| | **Mode** ***(most frequent response)*** |
|---|---|
| **Criticality Safety** | 3 |
| **Industrial Safety** | 4 |
| **Transportation** | 3 |
| **Radiation Protection** | 3 |
| **Work Control** | 3 |
| **Conduct of Work** | 3 |
| **Conduct of Operations** | 3 |
| **Training** | 3 |
| **Engineering & Design** | 3 |
| **Lessons Learned from Commercial Nuclear Utilities** | 3 |
| **Operating Experience Analysis** | 3 |
| **Nuclear Safety** | 3 |
| **Good Practices** | 3 |
| **Cost-Beneficial Activities** | 3 |
| **Emergency Planning/ Environmental Protection** | 3 |

30. How would you improve the OEWS (what are important attributes the OEWS should have but that are currently lacking/inadequate)?
*See Qualitative Discussion*

31. Should DOE periodically publish an index of OEWS article titles to help find past articles of interest to readers?

| | |
|---|---|
| **Yes** | **75.6%** |
| No (proceed to question 33) | 13.7 |
| Not sure (proceed to question 33) | 8.6 |

32. If yes, which index subjects would be most useful (check all that apply)?

| | |
|---|---|
| **OEWS article title** | **22.3%** |
| Facility where event occurred | 6.6 |
| **Subject of article (key words)** | **37.6** |
| **All of the above** | **31.5** |

33. What other Operating Experience or lessons learned products would be useful to your facility?
*See Qualitative Discussion*

34. In your opinion, is there a need for another Operating Experience product that is published:

| | |
|---|---|
| Monthly | 2.2% |
| Quarterly | 7.3 |
| Semi-annually | 5.6 |
| Annually | 7.9 |
| **No need** | **77** |

35. Do you have any suggestions for content, format, medium, length, distribution, focus, etc.?
*See Qualitative Discussion*

36. In your opinion, would a periodic publication highlighting outstanding programs at DOE facilities, sites, or organizations be useful?

| | |
|---|---|
| **Yes** | **61.4%** |
| No | 10.7 |
| **Not sure** | **24.9** |

38. Are you aware that you can write an article and work with the OEAF engineers to get it published in the OEWS?

| | |
|---|---|
| Yes | 41.1% |
| **No** | **55.3** |

39. Are you able to access the OEWS electronically on your office network or through the Internet?

| | |
|---|---|
| **Yes** | **73.1%** |
| No | 19.8 |

40. Are you aware that you can perform electronic word searches of all Weekly Summaries from the OEWS website?

| | |
|---|---|
| **Yes** | **53.3%** |
| No | 41.6 |

If yes, how often do you use this feature?

| | |
|---|---|
| Once a week | 4.6% |
| Once per month | 12.2 |
| **Never** | **47.7** |
| **Other** | **35.5** |

41. How useful in your job are the Safety Notices published by the Office of Nuclear Safety?

| | |
|---|---|
| **Very useful** | **24.0%** |
| **Somewhat useful** | **46.4** |
| Rarely useful | 13.5 |
| Never useful | 0.5 |
| Not aware of Safety Notices (Proceed to Question 45) | 15.6 |

42. Do the Safety Notices contain sufficient information?

| | |
|---|---|
| **Yes** | **77.4%** |
| No | 3.6 |

If no, what information do you feel should be included?
*See Qualitative Discussion*

43. On average, the length of the Safety Notices is

| | |
|---|---|
| Too long<br>(Most notices contain extraneous information and take too long to read.) | 2.5% |
| **Acceptable**<br>(Most notices contain only pertinent information.) | **75.6** |
| Too short<br>(Most notices are missing pertinent information.) | 3.0 |

44. How easy to understand are the Safety Notices?

| | |
|---|---|
| Too difficult<br>(The writing is complex; many technical terms are not adequately defined.) | 1.3% |
| **Acceptable**<br>(The writing is clear; technical terms are adequately defined.) | **96.9** |
| Too tedious<br>(The writing is simplistic; too many common technical terms are defined.) | 1.9 |

45. What other subjects for Safety or Technical Notices would be useful to your facility?
*See Qualitative Discussion*

46. Would you like to receive the OEWS electronically (usually available the day it goes to print)?

| | |
|---|---|
| **Yes** | **58.4%** |
| No | 34.0 |

# V. Qualitative Results

Some of the questions were deliberately made open-ended so as to elicit qualitative responses.

***Question 16***

**How do you use the OEWS in your job (check all that apply)?**

Respondents wrote in 65 "Other" ways in which they used the OEWS in their jobs. The areas that were mentioned by more than one respondent fell into three categories: materials/training (8 respondents), safety meetings (2 respondents), and lessons learned (2 respondents).

***Question 19***

**Do the articles in the OEWS contain sufficient information?**

Yes
No (If no, what information do you feel should be included?)

Nineteen responses were written in. Two themes were evident: more follow-up on previous incidents (4 respondents) and greater detail in incident descriptions (4 respondents).

***Question 30***

**How would you improve the OEWS (what are important attributes the OEWS should have but that are currently lacking/inadequate)?**

Six themes could be discerned in the 84 responses: distribution of the OEWS through an e-mail listserver or ordinary e-mail, with no printed version (6 respondents); more content on NRC/commercial experience, policies, and procedures (6 respondents); more photos in the articles (4 respondents), more charts in the articles (3 respondents); inclusion of a point of contact at the incident site for each article (3 respondents); and presentation of annual trend data for incidents (2 respondents).

***Question 33***

**What other Operating Experience or lessons learned products would be useful to your facility?**

There were 48 responses to this question. The variety of topics in the response set reveals a lack of consensus for any particular product. Several product ideas were put forward by more than one respondent: a lessons learned report from outside DOE (3 respondents), a good practices report (2 respondents), a product warning report (2 respondents), and an annual OEWS cd-rom (2 respondents).

### *Question 35*

**Do you have any suggestions for content, format, medium, length, distribution, focus, etc. [of another OEWS product]?**

There were 31 responses, with only three issues being mentioned by more than one respondent: annual trend report for incidents (8 respondents), "significant events" with follow-up report (3 respondents), and report focusing on secondary and root causes (2 respondents).

### *Question 42*

**If no [to the Safety Notices containing sufficient information], what information do you feel should be included?**

There were only four responses to this question, and they displayed no commonalities.

### *Question 45*

**What other subjects for Safety or Technical Notices would be useful to your facility?**

There were 24 responses to this question; no topic was put forward by more than one respondent, revealing a lack of consensus on the appropriateness of any single topic. Suggestions included subcontractor control in radiological areas, packaging issues, fire protection, security safety, respiratory protection, electrical safety, chemical safety, and work control/planning.

## *Analysis by Job Title, Role in Safety, and Employer Type*

The OEWS reaches a diverse audience. Previous surveys sought only to summarize the overall response. This analysis, by contrast, seeks to uncover perceived differences in the usefulness of the OEWS by job title of the respondent; by whether or not the department in which the respondent works is responsible for safety; and by type of organization for which the respondent works.

### Job Title

This analysis compared the responses of three groups of individuals: (1) respondents who said they were managers, (2) respondents who said they were engineer/analysts, and (3) respondents who said their position did not fit into one of the two previous categories. The "Other" category included titles ranging from supervisor to QA auditor. No job title in this "Other" category was mentioned more than eight times. The responses to all questions were placed into one of these three groups. Statistical analyses of the responses were performed to assess possible systematic differences in responses.[2]

[2] Cross-tabulations of responses were run and chi-square tests were performed to assess possible systematic differences in responses using SAS 6.12. When sample distributions brought the chi-square test assumptions into jeopardy, a Cochran-Mantel-Haenszel general association statistic was generated in order to assess possible systematic differences in responses.

There is significant support (at the .05 level) for asserting differences in responses to questions in the following areas.

- *Use of the OEWS in corrective actions programs.* Managers were more likely than engineer/analysts to report that the OEWS is used in corrective actions programs.

- *Use of the OEWS in training programs.* Managers were more likely than engineer/analysts to report that the OEWS are used in training programs.

- *The utility of "Investigation and causes of event" information in OEWS articles.* The "Other" category of respondents rated this portion of the articles as more useful than did engineer/analysts, who in turn rated it as more useful than did managers.

- *"Should DOE periodically publish an index of OEWS article titles to help find past articles of interest to readers?"* Engineer/analysts were more likely to be unsure of how to answer this question.

## Role in Safety

This analysis compared the responses of two sets of individuals: (1) respondents who said they worked in a safety department, (2) respondents who said they worked in any other department. The responses to all questions were placed in one of these two groups. Statistical analyses of responses were performed to assess possible systematic differences in responses.[2]

There is significant support (at the .05 level) for asserting differences in responses to the questions in a number of areas:

- *Use of the OEWS in lessons learned programs.* Respondents in safety departments were less likely to use the OEWS in a lessons learned program.

- *Use of the OEWS in nuclear safety programs.* Respondents in safety departments were more likely to use the OEWS in a nuclear safety program.

- "*How useful in your job are the articles in the OEWS?"* Respondents from safety departments divided their responses almost evenly between "Very useful" (the slight majority) and "Somewhat useful". The majority of the remaining respondents chose the "Somewhat useful" category.

- *Rating of "Criticality safety" in response to "Which of the following subjects do you think should be covered in the OEWS? ("0" = Never include, "3" = OEWS covers the subject sufficiently, "5" = Include more frequently)."* Respondents from safety departments were more likely than other respondents to ask for criticality safety to be included more frequently.

- *Rating of "Industrial safety" in response to "Which of the following subjects do you think should be covered in the OEWS? ("0" = Never include, "3" = OEWS covers the subject sufficiently, "5" = Include more frequently)."* Respondents from safety departments were more likely than other respondents to ask for industrial safety to be included more frequently.

- *Should DOE periodically publish an index of OEWS articles?* Respondents from safety departments were more likely than other respondents to be interested in an index of OEWS article titles.

- "*Are you aware that you can write an article and work with the OEAF engineers to get it published in the OEWS?"* Respondents from safety departments were more likely to unaware of this possibility.

- *"How useful in your job are the Safety Notices published by the Office of Nuclear Safety?"* Respondents from safety departments were more likely to choose "Very useful."

- *"Do the Safety Notices contain sufficient information?"* Respondents from safety departments were less likely to agree that the notices contain sufficient information.

- *"On average, the length of the Safety Notice is ("Too long," "Acceptable," or "Too short").* Respondents from safety departments were less likely to choose "Acceptable."

## Employer Category

This analysis compared the responses of individuals who work for different types of organizations: (1) DOE, (2) an operating contractor for DOE, (3) another type of contractor for DOE, (4) a subcontractor of a DOE operating contractor, (5) and "Other." The "Other" category of employers ranged from state regulatory agencies to commercial nuclear utilities. No employer type in this "Other" category was mentioned by more than six respondents.

The responses for all questions were placed into one of the five employer groups. Statistical analyses of responses were performed to assess possible systematic differences in responses. [3]

There is significant support (at the .05 level) for asserting differences in responses to the following questions:

- *"Does your facility or organization (e.g., company, office, site) have a lessons learned program?"* The "Other" and "Other contractor" categories

[3] Cross-tabulations of responses were run and chi-square tests were performed to assess possible systematic differences in responses using SAS 6.12. When sample distributions brought the chi-square test assumptions into jeopardy, a Cochran-Mantel-Haenszel general association statistic was generated in order to assess possible systematic differences in responses.

of respondent were more likely to report that there was no lessons learned program.

- *"If yes [to the preceding question], would you describe the program as formal (i.e. written guidance or procedures)?"* The "Other" and DOE categories were more likely to report there was no formal program.

- *"If yes [to the preceding question], does the program include identification of specific corrective actions from reviewing operating experience/lessons learned documents that may be applied to your facility?*" Respondents employed by DOE were more likely than those employed by the "Other" category to answer no.

- *"Does your facility have a lessons learned coordinator or point-of-contact?"* The "Operating contractor" category was the most likely to respond in the affirmative.

- *Use of the OEWS as part of job in corrective actions programs.* Subcontractors were the only employer group where fewer than half the respondents said they used the OEWS in industrial safety programs.

- *Use of the OEWS as part of job in industrial safety programs.* Subcontractors were the only employer group where fewer than half the respondents answered in the affirmative.

- *Use of the OEWS as part of job in nuclear safety programs.* Respondents working for DOE and subcontractors gave fewer affirmative responses than respondents working for other groups.

- *"Do you believe the OEWS has contributed to improved safety performance at your site?"* Respondents in the "Other" category were the mostly likely to answer no to this question.

- *Comment on the length of the OEWS articles.* Respondents employed by DOE were the mostly likely to report that the article length was acceptable, while respondents in the "Other" category were most likely to report the articles were too short.

- *Usefulness of the "Trend of similar occurrences (graph)" information in the OEWS articles.* The most common score awarded by respondents working for DOE and for other contractors to DOE was 4 (with 5 being "Very useful"). The most common score awarded by respondents working for employers in the remaining three categories was 3 (near the middle of the utility spectrum).

- *Rating of "Operating experience analysis" in response to "Which of the following subjects do you think should be covered in the OEWS? ("0" = Never include, "3" = OEWS covers the subject sufficiently, "5" = Include more frequently)."* The only group of employees whose most common rating for this subject was 4 were employees of the category "Other." The most common rating of all the remaining categories was 3.

- *"Should DOE periodically publish an index of OEWS article titles to help find past articles of interest to readers?"* DOE respondents were the most likely to respond in the affirmative, with respondents in the "Other" category most likely to be not sure.

- *Interest in an index.* Respondents who were interested in DOE publishing an index had different ideas about how the events should be indexed. Those working for "Other" employers were more likely than the remaining respondents to call for indexing all the possible elements.

- *"In your opinion, would a periodic publication highlighting outstanding programs at DOE facilities, sites, or organization be useful?"* The majority of the respondents working for DOE and both contractor groups responded in the affirmative. The "Other" category of respondents was evenly split between the affirmative and "Not sure" in response to this question.

- *"How useful in your job are the Safety Notices published by the Office of Nuclear Safety?"* For respondents employed by DOE and contractor groups, the most common response was "Somewhat useful." The most common response for the "Other" category was "Not aware of Safety Notices."